



Cultural Values Influence the Attitude of Chinese, Japanese, and Korean College Students towards Cosmetic Surgery

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Abstract There are large differences in the frequency and types of cosmetic surgeries performed in different countries around the world. Although availability, access, cost, and affordability each play a role in the observed differences, we tested the hypothesis that sociocultural and moral values significantly influence the level of acceptance of cosmetic surgery. In 2015, we collected the views of 206 college students in an international university in Japan to compare the views of Japanese students (n = 114) towards cosmetic surgery with those of South Korean (n = 37) and Chinese (n = 55) students. There was an overall "negative" attitude towards cosmetic surgery among Japanese (63%) and Chinese students (74%), compared with a "positive" attitude among Korean students (72%), that was statistically significant (chi-square value of 19.477). A qualitative analysis of the students' comments suggests that the negative view of Japanese students towards cosmetic surgery was associated with the values of respect to parents, naturalness, concern for safety and health (rather than appearance), modesty, and preserving one's individuality. On the other hand, Korean students mentioned the values of beauty, autonomy, utility (job opportunities, social relations), popularity, and perceived safety as reasons for their positive attitude towards cosmetic surgery. The negative view of Chinese students was mainly associated with the value of respect to parents and preserving the inherited characteristics as well as avoiding the perceived risk of surgical procedures. Interestingly, students' gender had no statistically significant influence on their positive/negative attitude and/or acceptance of cosmetic surgery (P value >0.05). The finding of significant differences in

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sociocultural and moral values for and against cosmetic surgery suggests that cultural differences may explain the varying attitudes and thus some of the differing rates of cosmetic surgery between the countries.

Keywords Chinese students \cdot College students \cdot Cosmetic surgery \cdot Cultural values \cdot Japanese students \cdot Korean students \cdot Moral values

Introduction

Cosmetic surgery for enhancement of appearance started relatively late in 1950s in the USA, and was limited to a few procedures and techniques. However, it now includes a wide variety of surgical (and non-surgical) methods and is being performed around the world, though it still poses controversial issues, both medically and socially. Its rapid development has something to do with a change in the sociocultural values and notions regarding the human body, as well as the use of medicine in a free market model (Davis 1995). Today's large market of cosmetic surgery is influenced both by consumer culture in the society and the marketing activity of plastic surgeons who promote increasingly newer methods of esthetic enhancement (Elliott 2008). Some of the reasons behind an increased demand for cosmetic surgery include a lack of self-esteem, coping with emotional suffering, a desire for conformity, narcissism, a feeling of empowerment, a sign of modernity and top consumerism (prestige), and as a new means of selfexpression and construction of self-identity (Davis 1995, 2002; Askegaard et al. 2002). While a study in Europe reported that just 9.1% of patients demanding cosmetic surgery were suffering from body dysmorphic disorder (Aouizerate et al. 2003), researchers in Japan reported that 47.7% of a sample of 415 patients were suffering from a variety of mental disorders and 56% had poor social adjustment (Ishigooka et al. 1998). Another study in Japan reported that the risk of suffering from a mental disorder was especially higher among male visitors to cosmetic surgery clinics, but more recently sociocultural changes appeared to influence the demand for cosmetic surgery more than psychological issues (Nakamura et al. 2000).

Holliday and Elfving-Hwang (2012) suggest that internationally varying practices in cosmetic surgery have resulted from a complex process of interaction between many concepts including national identity, global and regional standards of beauty, religion, traditional beliefs and practices, transition into adulthood, self-care, social status, and seeking success. Although USA still has the largest total number of cosmetic procedures performed annually, South Korea is at the top of the world's ranking on a per capita basis (Table 1). A recent survey in South Korea found that seven out of ten people do not object to cosmetic surgery, with an even higher percentage indicating they would have surgery if money was not an obstacle (Holliday and Elfving-Hwang 2012). In general, cosmetic surgery appears to be increasingly perceived by many people as a worthwhile and understandable investment in the body, rather than a sign of vanity.

Although body enhancement through cosmetic surgery has turned into a mass phenomenon worldwide, this is especially true in South Korea where close to one fourth of the new generation particularly women has had at least one cosmetic surgery (Holliday and Elfving-Hwang 2012). The desired appearance for many of the consumers in South Korea is based on features presumed as characteristic of Korean

Country	No. of annual procedures	Population	No. of procedure per 10,000 population		
South Korea	980,313	49,780,000	197 (1st world ranking)		
United States	4,064,571	318,900,000	127		
Japan	1,260,351	127,000,000	99		
Taiwan	103,000 (estimate)	23,359,928	44		
China	3,000,000 (estimate)	1,393,783,836	21		
Thailand	76,000 (estimate)	67,222,972	11		

 Table 1
 The number of cosmetic procedures performed in some Asian countries plus USA in 2014 (based on ISAPS international survey)

beauty, while Asian-American women living in USA commonly use cosmetic surgery to look more Western (Kaw 1993). Such findings confirm the suggestion by Davis that modern societies impose certain norms of appearance on people; those outside the norm may be affected by feelings of loss, inferiority, or despair (Davis 1995, 2002). Therefore, demand for cosmetic surgery may be based on the norms of beauty in the society where one lives rather than the subjective perception of beauty that one has. This finding raises the prospect that sociocultural values as well as moral values within a given society may influence the acceptance of cosmetic surgery and thus the size of the demand for cosmetic surgery. In other words, attitudes towards cosmetic surgery are shaped by instrumental values (including sociocultural factors) as well as deeper moral beliefs that also intersect with sociocultural values.

Furthermore, a comparison of the types of cosmetic procedures performed in South Korea and Japan in 2014 (Table 2) shows that 74% of the procedures in Japan were non-surgical, especially for hair removal with laser and chemical peel, in comparison with 55% non-surgical procedures in South Korea. Among the surgeries performed, the number of eyelid surgery is not significantly different between Japan and South Korea (both about 11% of all procedures) while the proportion of performed rhinoplasties in South Korea is two times higher than in Japan (6 vs. 3%, respectively). Based on the ISAPS survey (International Society of Aesthetic Surgery 2015), South Koreans are less conservative about procedures that may significantly change how they look like.

The overwhelming majority of cosmetic surgeries worldwide are done on women (more than 90%). Davis (2002) argues that gendered assumptions of beauty imply that men may not opt for cosmetic surgery in significant numbers. However, in South Korea, men compose 15% of the consumer market and this proportion appears to be

 Table 2
 Comparison of the number of non-surgical vs. surgical cosmetic procedures between Japan and
 South Korea in 2014 (based on ISAPS international survey)

Country	Population	All procedures Non-surgical		Eyelid surgery	Rhinoplasty	
South Korea	49,780,000	980,313	539,730(55%)	107,712 (11%)	102,597(6%)	
Japan	127,000,000	1,260,351	933,953(74%)	138,990 (11%)	38,779(3%)	

increasing (The New Yorker, March 23, 2015 issue). A study on South Korean university students using an Acceptance of Cosmetic Surgery Scale (ACSS), as well as the actual vs. ideal body weight discrepancy, body appreciation, and sociocultural attitudes towards appearance demonstrated significantly higher total scores among women, implying that women were more accepting of cosmetic surgery (Swami et al. 2012). The only other significant predictor of acceptance of cosmetic surgery in this study, besides gender, was general body appreciation, suggesting that some students pursued cosmetic surgery to enhance their body image.

The website of Asian Plastic Surgery Guide (2009-2017) has reported that people in South Korea undergo invasive plastic surgery at a rate 1.7 times higher than people in Taiwan, 1.8 times higher than people in the USA, 2.3 times higher than people in Japan, and 8.2 times higher than people in China. Woo has suggested that Korean women attempt to gain power, pleasure, and freedom from appearance through cosmetic surgery (Woo 2004). While the South Korean government appears as undecided on the value of cosmetic surgery in terms of risk-benefit assessment, and the women's rights movements in Korea have emphasized its negative implications, the public has shown an increasingly positive attitude towards cosmetic surgery. According to Holliday and Elfving-Hwang (2012), in South Korea, a photograph is a requirement in job applications, and often physiognomy is used to evaluate candidates. The belief that character can be read from facial features has influenced social and career success, and physiognomy has turned into a form of "employment cosmetics." Successful surgery is assumed to enhance the features of a Korean look and appearance. Where qualifications and experience are equal, an employee with "friendly" facial features is preferred. Having a "lucky face" and "right face" or "best face" helps avoid the risk of leaving an unfavorable impression which is important (Holliday and Elfving-Hwang 2012, p70). Enjoying a certain level of perceived beauty at the workplace has been cited by many job applicants as a significant advantage, given the importance of social bonding in the workplace and the boost in self-esteem provided by a cosmetic "fix." Young men and women seem equally subject to these beliefs and practices in South Korea.

Researchers have previously examined the cultural differences among Japanese, Chinese, and Korean consumers of cosmetic surgery regarding their emphasis on safety, convenience, and cost-effectiveness (Yu and Ko 2012). In their study, Japanese customers of cosmetic surgery cared more about safety and cost-effectiveness while Korean customers were more concerned about selection of cosmetic surgery procedures. We undertook this research to examine a potential role for cultural and moral values in the attitude of the young generation towards cosmetic surgery. Many previous studies have focused on especially the views of consumers of cosmetic surgeries. However, we presumed that any associated cultural values, if found, would provide a better measure for the acceptance of cosmetic surgery in the society. Even if many people in society may not demand surgery for themselves, they still influence the demand by consumers of cosmetic surgeries. We also realize that about 90% of cosmetic surgeries worldwide are done on women; however, the sociocultural context for demand includes the attitude of men who directly or indirectly may encourage and accept, or discourage a surgical change in appearance. For this reason, it may be important to know the attitude (positive vs. negative) of a group of young people towards cosmetic surgery. We decided to focus our study on the attitude of young college students from China, Japan, and Korea towards cosmetic surgery, irrespective of gender, and as it will be seen in the part of findings, gender turned out to be a statistically insignificant predictor of a positive or negative attitude towards cosmetic surgery.

Methodology

This research is based on a questionnaire study that was performed on a large random group of college students (18 to 21 years old) in an international university in Japan. Ethical approval for the anonymous study was received in April 2015 from the Research Office of the university where the first author is teaching, based on its Research Code of Ethics. The large (n = 245) random group of college students included many students from Japan, China, and South Korea as well as other international students. They were all given a lecture on ethical principles of autonomy, benefit and harm, and justice, by the first author of this paper, with some information on the moral, social, and economic aspects of cosmetic surgery. Following the lecture, the students were encouraged to engage in a large classroom debate where the lecturer acted only as a moderator, to debate the pros and cons of cosmetic surgery. After all various opinions were exchanged, the students were asked to fill out an anonymous questionnaire (see the Appendix) to describe their own views on cosmetic surgery and provide arguments or cite cultural and moral values that they believed supported their positive or negative attitude towards cosmetic surgery. The focus of our debate and the questionnaire was on invasive surgical procedures but not on non-invasive cosmetic procedures (such as hair removal with laser and chemical peeling).

The filled in questionnaires were collected and then both quantitative and qualitative data were extracted by the second author of this paper, a graduate student, to avoid any potential researcher bias associated with conducting the lecture and moderating the student debate that followed. The quantitative data included the frequency of variables of nationality (nominal), gender (dichotomous, male vs. female), and a positive vs. negative view on cosmetic surgery (dichotomous). The number of students from Japan, China, and Korea was large enough (>30) for statistical comparison, but questionnaires filled in by students from other countries (in total, 39) including students from Vietnam, Thailand, Indonesia, Uzbekistan ,and others were discarded from the study due to the small number of each group (n < 11). Thus, 206 questionnaires were further examined using both quantitative and qualitative methods. To check for statistical significance of the differences between various groups, the chi-square test was used assuming an alpha rate of 5% and a *P* value smaller than 0.05 for statistical significance.

The qualitative data included comments made by each student arguing for or against cosmetic surgery, and the values from their culture that would support their respective view, as well as any other specific comments they had made regarding the topic. These comments were explored further based on *content analysis* using *inductive understanding* to extract the various values that had been cited; the focus of analysis was on *manifest content* to avoid any possible complexities of researcher bias. Some of the students' comments have been directly quoted in the section on findings; these comments include the uncovered moral, religious, sociocultural, as well as socioeconomic values that the students considered in forming their positive or negative attitude towards cosmetic surgery.

The study observed all ethical standards of institutional research conduct that have been made accessible online on the university's homepage under "research"; institutional ethical review protocols were observed and consent was taken from the students for examining the anonymous data they provided. The students were neither profiled nor asked about their own appearance or personal decision to have cosmetic surgery in the future. This study thus focused on the respondents' attitude towards cosmetic surgery and its acceptance, rather than individual need, demand, or want. The authors believed this approach would be a more ethical method for research in respect with privacy and confidentiality, thus increasing compliance by the students, and would also suffer less bias from subjective feelings of students regarding their own appearance in an international campus. Students who participated in the study felt positively about sharing their views, and the research team was also impressed by the warm response and level of students' cooperation.

Findings

Table 3 summarizes the quantitative data collected from the questionnaires based on the number of students from Japan, China, and South Korea, grouped according to their positive vs. negative view on cosmetic surgery, and their gender (male or female). The age of the respondents has not been considered as all students were in a close age range of 18 to 21 years old. From 206 students, about half (n = 102) were male and half (n = 104) female. There were 114 Japanese, 55 Chinese, and 37 South Korean students in this sample of students at our school which followed the overall student body combination. The number of male and female students was almost equal among the Japanese, but there were relatively more females among the Chinese, and more males among the Korean students in this sample.

There was a statistically significant difference between the largely "negative" attitude of Japanese (63%) and Chinese students (74%) towards cosmetic surgery, and the "positive" attitude of students from South Korea (72%); the value of chi-square for difference in attitude per nationality of students was 19.477, with a P value of 0.000. Japanese and Chinese students both showed a predominantly negative attitude on cosmetic surgery, while Korean students expressed a predominantly positive view on cosmetic surgery. There was no statistically significant difference between positive vs. negative attitudes towards cosmetic surgery based on "gender" of the students (the value of chi-square for difference in

 Table 3
 The number of students by nationality (Japan, China, and South Korea), their attitude towards cosmetic surgery (positive vs. negative), and gender (female vs. male)

	Positive view			Negative view			Total		
	F	М	All	F	М	All	F	М	All
Japanese	20	22	42	39	33	72	59	55	114
Chinese	8	6	14	24	17	41	32	23	55
Korean	9	17	26	4	7	11	13	24	37
Total	37	45	82	67	57	124	104	102	206

attitude per gender for Japanese, Chinese, and Korean students was 0.455, 0.008 and 0.010 respectively, with a *P* value of 0.500, 0.927 and 0.919, respectively). The number of Korean male students with a positive as well as a negative view on cosmetic surgery was larger than female Korean students; however, the difference between the male/female ratios in the positive and negative groups was statistically insignificant. Therefore, overall, we did not find any statistically significant difference in the attitude towards cosmetic surgery based on the respondents' gender.

In the next stage, we examined all the respondents' comments qualitatively including especially whether they had a positive or negative attitude towards cosmetic surgery. The students had been asked to defend their position using their own arguments. The comments were thus subjected to *content analysis* to extract and identify the cited values for both positive and negative attitudes by the respondents. We were able to uncover/identify a good number of cultural/moral values cited by Japanese students to support their negative attitude towards cosmetic surgery including: respect to parents, naturalness, concern for safety and health (rather than appearance), modesty, and preserving one's (unique) individuality. Most Japanese students had cited more than a reason for their objection to cosmetic surgery among Chinese students was respect to parents through preserving the inherited characteristics. The reasons for positive views among Korean as well as some Japanese and Chinese students were mostly related to utility (job opportunities, social relations), popularity, and convenience but also included values such as beauty (n = 11), autonomy (n = 6) and perceived safety.

Although many Japanese (n = 19) and Chinese (n = 20) students had concerns over safety and the risk of an operation, very few Korean (n = 2) students mentioned it. A few Japanese (n = 9) and Chinese students (n = 6) referred to the high cost of cosmetic surgery as a disadvantage while no Koreans mentioned the issue of cost. The lack of wide social acceptance of cosmetic surgery was mentioned as a reason by both Japanese (n = 12) and Chinese (n = 8) students while Korean (n = 7) students on the contrary mentioned a high level of social acceptance for cosmetic surgery. Among all students, the most common reasons for having a positive attitude to cosmetic surgery was the resultant beauty (n = 50), improving self-esteem (n = 24), better employment opportunities (n = 20), and a happier life (n = 11). Relatively more students from Korea (n = 10) believed it would have a good impact on the chances of employment, as compared with Japanese (n = 7)and Chinese (n = 3) students.

Here, we quote some of the more interesting comments of the students that were used in our qualitative analysis. Each identified *theme* (value) is followed by one or two examples from students' comments. For example, regarding the strong sense of "individuality" among Japanese students, one of the students wrote:

"If a person has some negative features, they think as if they feel proud of those features. They think that this feature is mine."

Another Japanese student said: "Our flaws are the only things that make us unique. So, by removing them, we only make ourselves blend into the normal crowd."

These comments were especially interesting because Japanese culture is known to be collectivist; true, however, Japanese people in their collectivist society commonly have a strong sense of their individual/personal differences that helps them feel unique. This has been observed and reported before (Hoffman 2000), but was one of the most interesting and quite unexpected findings in our study.

Regarding the value of preserving "naturalness" among Japanese students, one of the students referred to the value of staying natural that:

"In Japan people tend to like to be natural. I guess this is because we used to believe in animism in our culture which is the doctrine that all natural objects and the universe itself have souls. So, people in Japan think being natural is good."

Another Japanese student observed: "It seems that even pierced earrings are not that common in Japan".

Some students would start their comments by referring to an ethical principle, such as the right to choose cosmetic surgery (*autonomy*), its utilities (*benefit*) vs. possible risk of injury (*harm*), and its economic impact on the person or the society (*justice*). For example, a Japanese student referred to the high "cost" of cosmetic surgery: "Double eyelid surgery costs about 50,000 yen per eye according to a Clinic website. This means that to change both eyes, it will cost around 100,000 yen."

A Japanese student with a positive attitude towards cosmetic surgery referred to the "convenience" provided by cosmetic surgery as a certain advantage:

"Cosmetic surgery saves morning time. Recently, Japanese makeup skills have become one of the best in the world; but it takes more and more time for makeup. Thus, many social problems have occurred in Japan. Such as observing women doing makeup in train or bus, some women focus on their makeup instead of their work and sometimes they are late for job and school."

One of the Chinese students mentioned the following phrase based on Confucianism values:

"This body of mine, down to the very hair, is my parents' gift, and it is my first filial duty to keep it safe from harm."

Another Chinese student, referring to the right of the parents over the appearance they endow upon their children, said:

"In ancient times, no one could even cut their hair and only parents had such right. Inheritance is really important for the Chinese, and appearance is kind of inherited and no one should change it."

One of the Chinese students referred to what her mother told her, which apparently she still remembered very clearly:

"My mother said: You must not do Cosmetic Surgery. If you want to do that, try to imagine my pain when I gave birth to you. If you imagine that, maybe you will not want to have cosmetic surgery." A Korean student referring to the "popularity" of cosmetic surgery in Korea said:

"I have already done cosmetic surgery. I do not know how wide the meaning of cosmetic surgery is, but cosmetic surgery is really common in Korea and I have never thought that it is wrong."

Another Korean student mentioned about a TV competition where the prize of the winner would be free facial enhancement through surgery:

"In Korea there is a real life show called 'the voice' in which they try to find good singers who are not handsome or good looking, judging the participants by how they sing. If they pass the audition, they get money from the sponsor company to have cosmetic surgery."

Still another Korean student said:

"Koreans, including me, used to have a negative view on cosmetic surgery. However, nowadays those surgeries have become a part of culture especially for women; so we have just admitted this fact."

A Korean female student referred to the "utilities" of cosmetic surgery which in her view were the *benefits* of having cosmetic surgery, saying:

"If they are pretty enough, whether by cosmetic surgery or not, they do not have to work hard like others do every day. That is why girls in Korea do not work on their work skills or social skills and just think about getting a new cosmetic surgery."

A Korean male student referred to the value of "beauty" as well as its "utility," saying:

"I think cosmetic surgery is good, because the number of cute girls will increase. Therefore, I have a better chance of having a relationship with a cute girl. Also, more people can be cute, and for marriage, we can now focus on personality!"

A Korean student with a negative view of cosmetic surgery said:

"There are some role models that are considered beautiful or attractive and Korean girls just want to be like them. That is why the girls go to the hospital and say: 'make my face just like them'. But the result doesn't make them like the celebrity, as it does not change the situation that much in real life, and there are so many of them. This makes them confused and angry, and leads them to get more cosmetic surgery again."

Another Korean student who had a negative attitude towards cosmetic surgery said:

"The biggest reason is that cosmetic surgery can lead the society to 'lookism'. In my country we are facing the exact same problem these days."

Discussion

The quantitative data of our sample of 206 students (Table 3) provides a very interesting dichotomy between the mainly negative attitudes of Chinese (74%) and Japanese (63%) students towards cosmetic surgery vs. the mainly positive attitude of Korean (72%) students. The analysis of the reasons provided by the students to support their negative or positive attitude towards cosmetic surgery provided us with an even more interesting collection of sociocultural and moral values. Although Korean students appeared to be in an advantage regarding a wider availability and financial access to these procedures, cultural acceptance and emphasis on the perceived individual and societal benefits were also described as much higher by Korean students. For the Chinese and Japanese students, the limited availability and/or higher cost of these procedures were a concern, but the sociocultural values they cited as individual reasons played a strong role in their determination to avoid cosmetic surgeries.

This dichotomy is worth consideration because China, Korea, and Japan share many moral values from ancient times such as that transferred through Confucian philosophy. However, modern neo-Confucianism predominant in contemporary Korea has promoted conformity as a virtue, as "*it helped demonstrate social success through the individual's similarity with the image of an elite class*" (Deuchler 1992). Based on the responses of Korean students to our survey, as well as their comments, we believe the above quote captures the essence of why Korean students show a largely positive attitude towards cosmetic surgery which is quite different from the views of Chinese and Japanese students. Korean students who were largely positive on cosmetic surgery emphasized on the values of added beauty, self-esteem, employment opportunities, and happiness. In their arguments, they referred to these themes as the benefits of cosmetic surgery, implying the associated ethical principle.

On the other hand, many Japanese students referred to the cultural value of "individuality," implying that one may be individually be identified based on unique characteristics while being part of a large collective society; this argument was an important reason why they would prefer to keep their individual facial features. A few female students suggested that the use of makeup is acceptable because it is reversible and does not dramatically change the nature of their "individual" essence. Interestingly, a female Japanese student referred to the convenience of cosmetic surgery if it could help her save "morning time" and avoid the embarrassment associated with having to do make-up on the subway or other public transport.

The other interesting value mentioned by Japanese students, was "naturalness." This value may be associated with the ancient belief in Shinto, a form of animism, which still influences the culture and social customs in modern Japan. Accordingly, it would be of value to preserve the "natural" features of a person, rather than changing them to something "artificial." Other significant concerns to justify a negative attitude towards cosmetic surgery among Japanese students included the "risks" of the procedure, and their high "cost," though such procedures are available in Japan through expert doctors. In fact, some of the best Japanese doctors have selected plastic surgery as their specialty to improve their income relative to doctors who depend on the lower fees of the universal health insurance (Ramseyer 2009). Many cosmetic surgeons advertise their services through various media; the cost of the procedures is much higher relative to those in South Korea. Also, cosmetic services are not covered by Japanese universal

insurance system and thus the service fee in not capped. Most of the procedures at the plastic surgery clinics in Japan are relatively simple ones performed at skin level using various laser beams, and invasive operations that cut deeper under the skin and into the bones are much less common (personal communication with a popular plastic surgery clinic in Beppu city). On the other hand, South Koreans appear to undergo osteotomy operations, for example, to improve the appearance of the lower jaw.

The main value cited by most Chinese students supporting their negative attitude towards cosmetic surgery was the damage it would cause to "parental respect" and the rights of parents to the individual features inherited from them. It appears that Confucian ethics significantly influences the attitude of Chinese students quite differently from both Japanese and Korean students who feel that they have more "autonomy" over their individual features, particularly Koreans. Our study uncovered this significant cultural attitude among Chinese students that was voiced by their majority as a particularly important issue.

Many Korean students referred to the various "utilities" of cosmetic surgery in the Korean society including improved job opportunities and other advantages such as in interpersonal relationships. This has apparently caused a relatively wide "popularity" of cosmetic procedures especially among the younger generation in South Korea. In fact, cosmetic surgeries are now so common in South Korea that a few of our Korean students appear to have reacted by becoming critical and voicing a negative view of cosmetic surgery, with a student mentioning the issue of "lookism" afflicting the Korean society.

Limitations of the Study

The authors cannot entirely eliminate the possibility that the students in this study were influenced by the comments of other students during the debate. There is also a possibility that some students might have answered the question-naire with some cultural overreaction regarding the concept of belonging to Asian heritage, rather than their true personal feelings.

Some of the themes emerged only from Japanese students, but not other students. However, we cannot claim that Chinese students were less sophisticated in the arguments they made. It is possible that the use of a questionnaire, instead of interview, resulted in a summarized comment that referred only to largest theme, *filial duty to parents*.

While we identified a number of themes related to Japanese, Chinese, and Korean ethnicities, one cannot claim that these hold true to the full extent of people in these countries. This study is valuable only in the sense of its focus on a young group of college students 18 to 21 years old. Also, these values are not the only factors that influence attitudes towards cosmetic surgery, because other conditions and factors may play an important role under real life conditions. Therefore, we would not claim that a certain nationality reflects a well-defined sociocultural perspective towards cosmetic surgery.

The only distinction drawn between sociocultural and moral values in this study was about the four ethical principles of autonomy, benefit and harm, and justice. Although the students referred to these principles, there was a strong usage of sociocultural values that directed the bulk of the discussion. Therefore, this study may not be described as having a focus on ethics.

In the future, it would be interesting to have similar studies in domestic as well as international colleges located in China and Korea, to compare the results.

Swami and his colleagues examined the acceptance of cosmetic surgery among university students in the UK (Swami et al. 2009), and he later examined the influence of media, and students' weight and body image on a consideration of cosmetic surgery among female students (Swami 2009). The researchers realized that self-esteem, conformity, and self-assessed attractiveness played a significant role in the acceptance of cosmetic surgery among university students in the UK. Also, being greatly influenced by media, and having a less satisfactory body image were shown to be significant factors in consideration of cosmetic surgery among female university students in the UK. However, we have tried in this study to examine the role of sociocultural values and moral principles (autonomy, benefit and harm, justice) in the attitude of college students towards cosmetic surgery. The nationality of students were assumed as an approximate proxy for the different cultural values of this large sample of students from Japan, China, and South Korea, and their positive/negative views as well as their comments were analyzed to search for varying values. Although they were presented with the topic in one common lecture, they showed different views in the debate that pursued and picked a significantly different attitude towards cosmetic surgery in their written comments. This allowed us to confirm our view on the role of cultural and moral values and also to identify many of them in the qualitative assessment of students' comments.

We can conclude by saying that our study on 206 college students from China, Korea, and Japan has demonstrated the strong role of sociocultural and moral values in forming a negative or positive attitude towards cosmetic surgery, which potentially influences the size of the demand for cosmetic procedures among them. The frequency of a positive attitude towards cosmetic surgery was the highest among Korean students (72%). Although cosmetic procedures are being accepted by a relatively larger number of Japanese youth (37%) as compared with the Chinese (26%), the Japanese would still demand less invasive procedures that are perceived to be safer and appear as less radical. This is significant because it demonstrates the role of cultural promotion and education on the mindset of the young generation regarding important issues on individuality, diversity, the importance of family, personal appearance vs. other aspects of a person including cultural and moral values, personality, and etc.

The results of this study may be worth further examination in larger sample sizes in each of the three mentioned countries. In future studies, we would like to expand the questionnaire and include questions about the role of a cross-cultural debate on the attitude of students (pre- and post- lecture), the role of various media on the attitude of students particularly in Korea, as well as the influence of social environment and peer groups. It would also be interesting to examine in further studies whether there is a relationship between the attitude to cosmetic surgery and moral values such as autonomy, family values such as an interest in marriage, personal identity, and emphasis on traditional cultural values vs. modernism and professionalism, especially among women.

Appendix

"Questionnaire"

This is an anonymous study to help understand the view of the youth regarding cosmetic surgery. The information will only be used for research purposes. You do not have to answer the following questions if you choose not to. Thank you for your time and consideration.

Age:

Gender: (Please use M for male, F for female, O for other)

Nationality:

What is your view on the use of Cosmetic Surgery?

(You can use positive or negative, acceptable or not acceptable).

Please explain your view using arguments that help support your view.

(You may refer to ethical principles or values in your culture, society, religion, etc. that you are familiar with to argue for/against the use of cosmetic surgery.)

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